



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,904	12/14/2001	Pete A. Hawkins	42P13516	4204
45209	7590	12/27/2007		
INTEL/BLAKELY 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER PATEL, NIMESH G	
			ART UNIT 2111	PAPER NUMBER
			MAIL DATE 12/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/014,904

Applicant(s)

HAWKINS ET AL.

Examiner

Nimesh G. Patel

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-10 and 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 and 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,7-10 and 16-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 4, 5, 7-10 and 16-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification states: "For example, central management agent 105 may monitor and/or control the power supplies 111-115, the fan trays 121-122, and the temperature sensors 131-133"(Page 4, Lines 1-3). This statement does not specifically state control signals are transmitted to the temperature sensors and the language is unclear as to which of the components(sensors, fans, power supplies) are only monitored, only controlled, or both monitored and controlled. If the sensors were to be controlled, there would be at least some other disclosure to as to how the sensors were controlled. The specification only discloses the sensors being monitored and the fan trays being controlled based on the readings from the sensors.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2111

4. Claims 1, 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stepp, III(6,487,463) and what is well known in the art, as evidenced by Umezawa(US 4,975,766).

5. Regarding claim 1, Stepp discloses a first set of field replaceable units each being of a first type(Figure 3, 314); a second set of field replaceable units each being of a second type(Figure 3, 316); a first management bus(Figure 3, Bus between 314 and 320), directly coupled to each of the first set of field replaceable units, wherein the first management bus is coupled only to field replaceable units of the first type; a second management bus(Figure 3, Bus(Fan M and Fan C Wires) between 316 and 320), directly coupled to each of the second set of field replaceable units, wherein the second management bus is coupled only to field replicable units of the second type; and a central management agent(Figure 3, 320) coupled to the first management bus and the second management bus, to monitor each of the first and second sets of field replaceable units via the first and second management buses, and to transmit signals to control the second set of field replaceable units(Column 6, Lines 14-19); and a communication link, coupled to the central management agent, to transmit signals received from the central management agent indicating a failure of one or more of the first set of field replaceable units and the second set of field replaceable units to a remote location(Column 6, Lines 61-62).

Stepp does not specifically disclose the first set of field replaceable units being controlled. However, Stepp discloses a controller(Figure 1, 126) connected to control the second set of field replaceable units(Column 6, Lines 14-19). Stepp also discloses the first set of field replaceable units connected to the controller(Figure 3). It would have been obvious to one of ordinary skill in the art to use the controller, connected to the first set of field replaceable units, to also control the first set of field replaceable units by switching the sensors on and off for

Art Unit: 2111

power conservation management or if the sensor is malfunctioning. For evidence purposes, Umezawa discloses controlling sensors(Column 4, Lines 44-49).

6. Regarding claim 4, Stepp does not specifically disclose a system, wherein the first and second management buses are Inter-IC buses. However, Official Notice is being taken that the Inter-IC bus is a well-known bus in the art. It would have been obvious to one of ordinary skill in the art to use Inter-IC busses as the first and second management busses for the advantage that only two lines (clock and data) are required for full duplexed communication between multiple devices. The common knowledge or well known in the art statement is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice(see MPEP 2144.03(C)).

7. Regarding claim 5, Stepp does not specifically disclose a system, wherein the system further comprises a second central management agent coupled to the first management bus. However, Official Notice is being taken that using a second central management is well known in the art. It would have been obvious to one of ordinary skill in the art to use a second central management agent for the advantage of having a redundant central management agent to take over in case the first management agent fails. The common knowledge or well known in the art statement is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice(see MPEP 2144.03(C)).

8. Regarding claim 7, Stepp discloses a system, wherein the central management agent is a processor(Column 6, Lines 20-21).

9. Claims 8-10 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stepp, in view of Holland(5,367,669)

10. Regarding claim 8, Stepp discloses a system, wherein the first set of field replaceable units are temperature sensors(Figure 3, 314) but does not specifically disclose a set of field

Art Unit: 2111

replaceable units are power supplies. However, Holland discloses a set of field replaceable units that are power supplies(Figure 3, 120). It would have been obvious to use the power supply 302 of Stepp with a set of field replaceable units that are power supplies, as disclosed by Holland, for the advantage of having redundant power supplies on one bus to take over in case the first power supply fails or to increase the amount of voltage provided to the system.

11. Regarding claim 9, Stepp does not specifically disclose a system, further comprising: a third management bus, coupled to the central management agent, to couple only to field replaceable units of a third type, and a third set of field replaceable units each being of the third type. However, Holland discloses a third management bus coupled to a third type of field replaceable units(Figure 3, 120). It would have been obvious to use a third management bus coupled to a third type of field replaceable units for the advantage of having redundant power supplies on one bus to take over in case the first power supply fails or to increase the amount of voltage provided to the system.

12. Regarding claim 10, Stepp and Holland disclose a system, wherein the third set of field replaceable units having the third type are fan trays(Figure 3, 316 and 130, respectively).

13. Regarding claim 16, Stepp discloses a system comprising: two or more temperature sensors(Figure 3, 314); a first management bus(Figure 3, Bus between 314 and 320), directly coupled to each of the two or more temperature sensors, wherein the first management bus is coupled only to temperature sensors; two or more fan trays(Figure 3, 316); a second management bus(Figure 3, Bus(Fan M and Fan C Wires) between 316 and 320) directly coupled to each of the two or more fan trays, wherein the second management bus is coupled only to fan trays; and a central management agent(Figure 3, 320), coupled to the first management bus and the second management bus, to monitor the temperature sensors and the fan trays via the first and second management buses, and to transmit signals to control

Art Unit: 2111

activation of one or more fan trays based upon signals received from the one of the temperature sensors via the first and second management buses(Column 6, Lines 14-19), and having failure detection logic to detect a failure of the fan trays(Column 6, Lines 58-62); and a network interface card coupled to the central management agent(Column 5, Lines 28-44).

Stepp does not specifically disclose having failure detection logic to detect a failure in temperature sensors and a network interface card to transmit signals received from the central management agent indicating a failure of one or more of the temperature sensors and the fan trays to a remote location. However, Holland discloses detecting failure of a component(Column 6, Lines 58-62). It would have been obvious to one of ordinary skill in the art to detect the failure of sensors since sensors are an essential component of monitoring and regulating temperature in the system. Failure of sensors would lead to miscalculation of the temperature in the system and therefore the fans would not properly regulate the temperature in the system.

14. Further, Stepp discloses alerting a user upon failure of a device(Column 6, Lines 58-62) and Holland discloses sending external alarm signals(Figure 3, 10). It would be obvious to one of ordinary skill in the art of alerting a user through a network interface card since this would alert a user of a failure even if the user were not in front of the system.

15. Regarding claim 17, Stepp discloses a system, wherein the system further comprises a central processing unit coupled to the central management agent(Figure 3, 304).

16. Regarding claim 18, Stepp discloses a system, wherein the central management agent is an abstracting agent(Column 6, Lines 14-19).

17. Regarding claim 19, Stepp discloses a system further comprising, one or more power supplies(Figure 3, 302). Stepp does not specifically disclose a third management bus coupled to the one or more power supplies and the central management agent, wherein the third management bus is coupled only to power supplies. However, Holland discloses a third

Art Unit: 2111

management bus coupled to a third type of field replaceable units(Figure 3, 120), wherein the third management bus is coupled only to power supplies. It would have been obvious to use a third management bus coupled to a third type of field replaceable units for the advantage of having redundant power supplies on one bus to take over in case the first power supply fails or to increase the amount of voltage provided to the system.

18. Regarding claim 20, Stepp and Holland disclose a system, further comprising an external communication link coupled to the central management agent(Column 6, Lines 61-62, and Figure 3, 10, respectively).

19. Regarding claim 21, Stepp does not specifically disclose a system, wherein the system further comprises a second central management agent coupled to the first management bus, to the second management bus and to the central management agent. However, Official Notice is being taken that using a second central management is well known in the art. It would have been obvious to one of ordinary skill in the art to use a second central management agent for the advantage of having a redundant central management agent to take over in case the first management agent fails. The common knowledge or well known in the art statement is taken to be admitted prior art because applicant failed to traverse the examiner's assertion of official notice(see MPEP 2144.03(C)).

20. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stepp and Holland, and in further view of Jewett et al.('251).

21. Regarding claim 22, Stepp does not specifically disclose a system further comprising a redundant first management bus coupled to the central management agent and coupled to each of the one or more temperature sensors, wherein the first management bus is not coupled to any of the other components. However, Jewett discloses a redundant first management bus coupled to the central management agent(Figure 13; 167-1, 167-2). Therefore it would have



Art Unit: 2111

been obvious to use a redundant first management bus coupled to the central management agent in the system of Stepp, to achieve redundancy so as to prevent complete system failure in the event of the first management bus failing.

### ***Response to Arguments***

22. Applicant's arguments filed October 12, 2007 have been fully considered but they are not persuasive.

23. Applicant argues the statement "For example, central management agent 105 may monitor and/or control the power supplies 111-115, the fan trays 121-122, and the temperature sensors 131-133" is enough to enable the this feature. However, this statement does not specifically state control signals are transmitted to the temperature sensors. Applicant argues that plain meaning of "and/or" means the devices are controlled and monitored. The "and/or" statement does not specifically mean the devices are being "monitored and controlled." It can also mean the devices are "controlled or monitored." The language is also unclear as to which of the components(sensors, fans, power supplies) are only monitored, only controlled, or both monitored and controlled. If the sensors were to be controlled, there would be at least some other disclosure as to how the sensors were controlled. The specification only discloses the sensors being monitored and the fan trays being controlled based on the readings from the sensors. Furthermore, applicant admits that one of ordinary skill in the art would recognize that it is inherent that a controller transmits signals to devices that are to be controlled. Stepp also discloses a controller(Figure 3, 320) connected to sensors(Figure 3, 314). Thus, by applicant's admission, Step inherently discloses a controller transmits signals to control the sensors.

24. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

Art Unit: 2111

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

25. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Stepp teaches the controlling of components(Figure 3, 316) connected to the controller(Figure 3, 320). It would have been obvious to one of ordinary skill in the art to also control other devices connected to the controller for the purpose of turning on and off sensors for power conservation or to disable malfunctioning sensors. As evidence, Examiner submits Umezawa(US 4,975,766). Umezawa discloses controlling sensors(Column 4, Lines 44-49).

26. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### **Conclusion**

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 2111

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nimesh G. Patel whose telephone number is 571-272-3640. The examiner can normally be reached on M-F, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinehart H. Mark can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nimesh G Patel  
Examiner  
Art Unit 2111

NP  
December 12, 2007

  
Glenn A. Auve  
Primary Patent Examiner  
Technology Center 2100